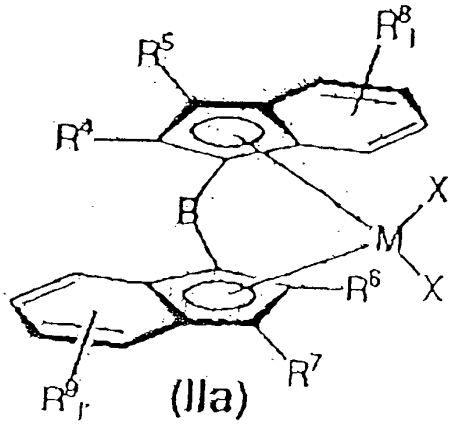
IN THE CLAIMS

Please amend claim 13, cancel claim 17 and add claims 18-21 as follows.

1-7. (canceled)

8. (previously presented) A process for converting a bridged metallocene of formula (IIa)



(IIa)

where

M is Ti, Zr or Hf,

R^4, R^6 are identical or different and are each hydrogen or a C_1-C_{20} group,

R^5, R^7 are identical or different and are each a hydrogen atom or a C_1-C_{20} group,

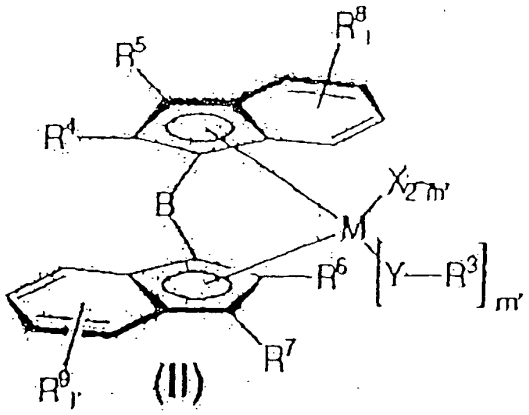
R^8, R^9 are identical or different and are each a hydrogen atom, a halogen atom or a C_1-C_{30} group, and two radicals R^8 and R^9 may form a monocyclic or polycyclic ring system which may in turn be substituted,

l, l' are identical or different and are each an integer from zero to 4,

X is a halogen atom, and

B is a bridging structural element between the two indenyl radicals,

to a bridged metallocene of formula (II),



where

M, X, 1, 1', B, R^4, R^5, R^6, R^7, R^8 and R^9 have the same meaning as above,

Y is an element of main group VI of the Periodic Table of the Elements,

m' is 1 or 2, and

R^3 are identical or different and are each halogen or a C_1-C_{30} group;

comprising the steps

a) reacting a bridged metallocene of the formula (IIa) with a ligand exchange component

$$M^1YR^3$$

where

Y and R^3 are as defined above,

M^1 is a cation, a cationic fragment, or an ammonium cation corresponding to an amine,

to form the bridged metallocene of formula (II),

b) optionally separating off solid residues of the formula M^1X,

c) optionally separating off the inert solvent or solvent mixture,

d) recrystallizing the bridged metallocene of the formula (II) from an aprotic hydrocarbon, and

e) separating the compound of the formula (II) from the mother liquor.

9. (previously presented) The process of claim 8 wherein in the bridged metallocenes of formula (IIa) and (II):

M is zirconium,

R^3 are identical or different and are each hydrogen atom or a C_1-C_{10}-alkyl, C_2-C_{12}-alkenyl, C_6-C_{24}-aryl, C_5-C_{24}-heteroaryl, C_7-C_{30}-arylalkyl, C_7-C_{30}-alkylaryl, fluorinated C_6-C_{24}-aryl, fluorinated C_7-C_{30}-arylalkyl, or fluorinated C_7-C_{30}-alkylaryl group,

R^4, R^6 are identical or different and are each hydrogen atom or a C_1-C_{18}-alkyl, C_2-C_{10}-alkenyl, C_3-C_{15}-alkylalkenyl, C_6-C_{18}-aryl, C_5-C_{18}-heteroaryl, C_7-C_{20}-arylalkyl, C_7-C_{20}-alkylaryl, fluorinated C_1-C_{12}-alkyl, fluorinated C_6-C_{18}-aryl, fluorinated C_7-C_{20}-arylalkyl or fluorinated C_7-C_{20}-alkylaryl group,

R^8, R^9 are identical or different and are each a hydrogen atom, a halogen atom, or a C_1-C_{30}-group, and two radicals R^8 and R^9 may form a monocyclic or polycyclic ring system which may in turn be substituted.

10. (previsously presented) The process according to claim 8 where in the compounds of formula (IIa) and (II):

R^5, R^7 are hydrogen atoms,

X is chlorine,

Y is oxygen or sulfur,

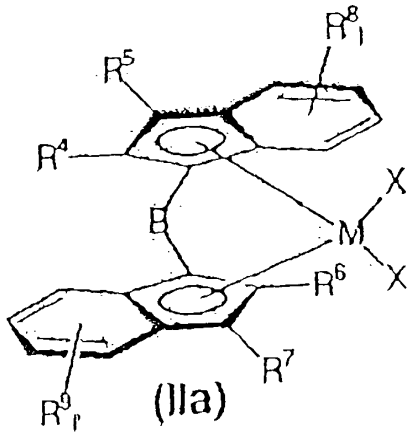
l, l' are 1,

m' is 1, and

B is $(CH_3)_2Si$, $(CH_3)_2Ge$, $(C_6H_5)_2Si$, $(C_6H_5)(CH_3)Si$, CH_2CH_2, $CH(CH_3)CH_2$, $CH(CH_4H_9)C(CH_3)_2$, CH_2, $C(CH_3)_2$, or $(C_6H_5)_2C$.

11. (previously presented) A process according to claim 8 wherein a polar or nonpolar, aprotic hydrocarbon or hydrocarbon mixture is used in step d).

12. (previously presented) The process for converting a bridged metallocene of formula (IIa)



(IIa)

where

M is Ti, Zr or Hf,

R^4, R^6 are identical or different and are each hydrogen or a C_1-C_{30} group,

R^5, R^7 are identical or different and are each a hydrogen atom or a C_1-C_{20} group,

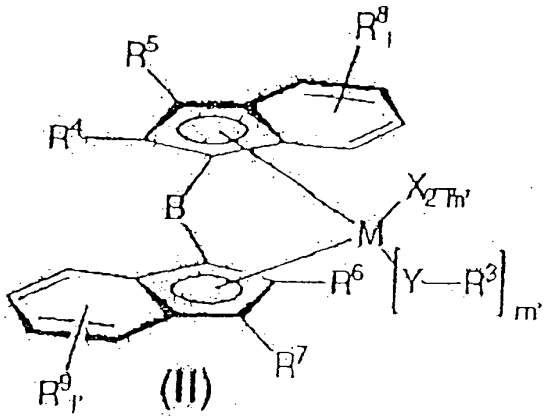
R^8, R^9 are identical or different and are each a hydrogen atom, a halogen atom or a C_1-C_{30} group, and two radicals R^8 and R^9 may form a monocyclic or polycyclic ring system which may in turn be substituted,

l, l' are identical or different and are each an integer from zero to 4,

X is a halogen atom, and

B is a bridging structural element between the two indenyl radicals,

to a bridged metallocene of formula (II),



(II)

where

M, X, l, l', B, R^4, R^5, R^6, R^7, R^8 and R^9 have the same meaning as above,

Y is an element of main group VI of the Periodic Table of the Elements,

m' is 1 or 2, and

R^3 are identical or different and are each halogen or a C_1-C_{30} group;

comprising the steps

a) reacting a bridged metallocene of the formula (IIa) with a ligand exchange

component

$$M^1YR^3$$

where

Y and R^3 are as defined above,

M^1 is a cation, a cationic fragment, or an ammonium cation corresponding to an amine,

to form the bridged metallocene of formula (II),

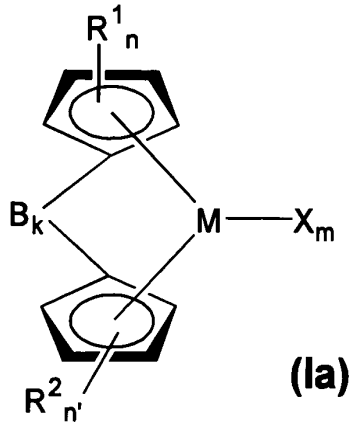
b) optionally separating off solid residues of the formula M^1X,

c) optionally separating off the inert solvent or solvent mixture,

d) recrystallizing the bridged metallocene of the formula (II) from a solvent selected from toluene, hexane, heptane, xylene, tetrahydrofuran (THF), diomethoxyethane (DME), toluene/THF, heptane/DME or toluene/DME, and

e) separating the compound of the formula (II) from the mother liquor.

13. (currently amended) A process for converting a bridged metallocene of the formula (Ia)



(Ia)

where

M is a metal of transition group III, IV, V or VI of the Periodic Table of the Elements,

R^1 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or different and are each a hydrogen atom or a C_1-C_{40} group, or R^1 is a C_1-C_{30} group,

or two or more radicals R^1 may be joined to one another in such a way that the radicals R^1 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24}-ring system which may in turn be substituted,

R^2 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or different and are each a hydrogen atom or a C_1-C_{40} group, or R^2 is a C_1-C_{30} group,

or two or more radicals R^2 may be joined to one another in such a way that the radicals R^2 and the atoms of the cyclopentadienyl ring which connect them form

a C_4-C_{24} ring system which may in turn be substituted,

X is a halogen atom,

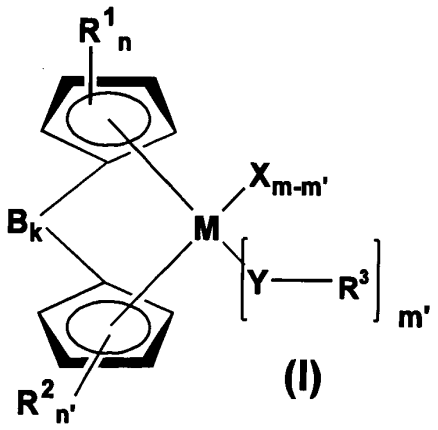
n is from 0 to 4,

n' is from 0 to 4,

m is from 1 to 4,

k is 1, and

B is a bridging structural element between the two cyclopentadienyl rings,



(I)

to a bridged metallocene of the formula (I)

where

M, R^1, R^2, X, n, n', m, k, B and R^{12} are as defined above and

m' is from 1 to 4,

R^3 is hydrogen or a C_1-C_{40} group,

Y is an element of the main group 6 of the Periodic Table of the Elements, or

a fragment CR^3_2, NR^3, $NR^3(CO)$-, $NR^3(SO_2)$-, PR^3 or $P(=O)R^3$, $O(CO)$-, $O(SO_2)$-,

comprising the steps:

a) reacting the compound of the formula (Ia) with a ligand exchange component

$$M^1YR^3$$

where

Y and R^3 are as defined above,

M^1 is a cation or a cationic fragment, ~~in particular Li, Na, K, MgCl, MgBr, MgI, or is an ammonium cation corresponding to an amine,~~

with the compound of the formula M^1X, where M^1 and X are as defined above, being eliminated, in an inert solvent or solvent mixture,

b) optionally, separating off solid residues of the formula M^1X

c) optionally, separating off the inert solvent or solvent mixture,

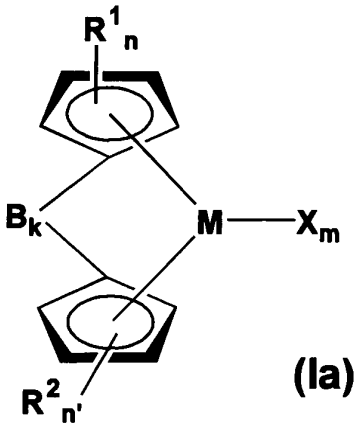
d) recrystallizing the bridged metallocene of the formula (I) from an aprotic hydrocarbon, and

e) separating the compound of the formula (I) from the mother liquor.

14. (currently amended) A process as claimed in ~~claim 1~~ claim 13, wherein a polar or nonpolar, aprotic hydrocarbon or hydrocarbon mixture is used in step d).

15. (previously presented) A process for converting a bridged metallocene of the

formula (Ia)



(Ia)

where

M is a metal of transition group III, IV, V or VI of the Periodic Table of the Elements,

R^1 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or different and are each a hydrogen atom or a C_1-C_{40} group, or R^1 is a C_1-C_{30} group, or two or more radicals R^1 may be joined to one another in such a way that the radicals R^1 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24}-ring system which may in turn be substituted,

R^2 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or different and are each a hydrogen atom or a C_1-C_{40} group, or R^2 is a C_1-C_{30} group, or two or more radicals R^2 may be joined to one another in such a way that the radicals R^2 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24} ring system which may in turn be substituted,

X is a halogen atom,

n is from 0 to 4,

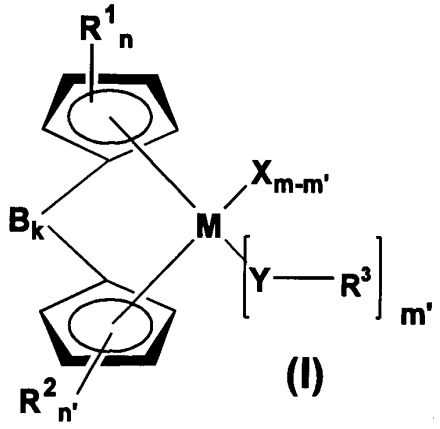
n' is from 0 to 4,

m is from 1 to 4,

k is 1, and

B is a bridging structural element between the two cyclopentadienyl rings,

to a bridged metallocene of the formula (I)



(I)

where

M, R^1, R^2, X, n, n', m, k, B and R^{12} are as defined above and

m' is from 1 to 4,

R^3 is hydrogen or a C_1-C_{40} group,

Y is an element of the main group 6 of the Periodic Table of the Elements, or a fragment CR^3_2, NR^3, $NR^3(CO)$-, $NR^3(SO_2)$-, PR^3 or $P(=O)R^3$, $O(CO)$-, $O(SO_2)$-,

comprising the steps:

a) reacting the compound of the formula (Ia) with a ligand exchange component

$$M^1YR^3$$

where

Y and R^3 are as defined above,

M^1 is a cation or a cationic fragment, or is an ammonium cation corresponding to an amine,

with the compound of the formula M^1X, where M^1 and X are as defined above, being eliminated, in an inert solvent or solvent mixture,

b) optionally, separating off solid residues of the formula M^1X

c) optionally, separating off the inert solvent or solvent mixture,

d) recrystallizing the bridged metallocene of the formula (I) from a solvent selected from toluene, hexane, heptane, xylene, tetrahydrofuran (THF), dimethoxyethane (DME), toluene/THF, heptane/DME or toluene/DME, and

e) separating the compound of the formula (I) from the mother liquor.

16. (previously presented) The process according to claim 13, where in the bridged metallocenes of formula (I) and (Ia):

M is Ti, Zr or Hf,

R^1 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or different and are each a hydrogen atom or C_1-C_{20}-alkyl, C_1-C_{10}-fluoroalkyl, C_1-C_{10}-alkoxy, C_6-C_{20}-aryl, C_6-C_{10}-fluoroaryl, C_6-C_{10}-aryloxy, C_2-C_{10}-alkenyl,

C_7-C_{40}-arylalkyl, C_7-C_{40}-alkylaryl or C_8-C_{40}-arylalkenyl,

or R^1 is C_1-C_{25}-alkyl such as methyl, ethyl, tert-butyl, cyclohexyl or octyl, C_2-C_{25}-alkenyl, C_3-C_{15}-alkylalkenyl, C_6-C_{24}-aryl, C_5-C_{24}-heteroaryl, C_7-C_{30}-arylalkyl, C_7-C_{30}-alkylaryl, fluorinated C_1-C_{25}-alkyl, fluorinated C_6-C_{24}-aryl, fluorinated C_7-C_{30}-arylalkyl, fluorinated C_7-C_{30}-alkylaryl or C_1-C_{12}-alkoxy,

or two or more radicals R^1 may be joined to one another in such a way that the radicals R^1 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24}-ring system which may in turn be substituted,

R^2 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or different and are each a hydrogen atom or C_1-C_{20}-alkyl, C_1-C_{10}-fluoroalkyl, C_1-C_{10}-alkoxy, C_6-C_{14}-aryl, C_6-C_{10}-fluoroaryl, C_6-C_{10}-aryloxy, C_2-C_{10}-alkenyl, C_7-C_{40}-arylalkyl, C_7-C_{40}-alkylaryl or C_8-C_{40}-arylalkenyl,

or R^2 is C_1-C_{25}-alkyl such as methyl, ethyl, tert-butyl, cyclohexyl or octyl, C_2-C_{25}-alkenyl, C_3-C_{15}-alkylalkenyl, C_6-C_{24}-aryl, C_5-C_{24}-heteroaryl, C_7-C_{30}-arylalkyl, C_7-C_{30}-alkylaryl, fluorinated C_1-C_{25}-alkyl, fluorinated C_6-C_{24}-aryl, fluorinated C_7-C_{30}-arylalkyl, fluorinated C_7-C_{30}-alkylaryl or C_1-C_{12}-alkoxy,

or two or more radicals R^2 may be joined to one another in such a way that the radicals R^2 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24} ring system which may in turn be substituted,

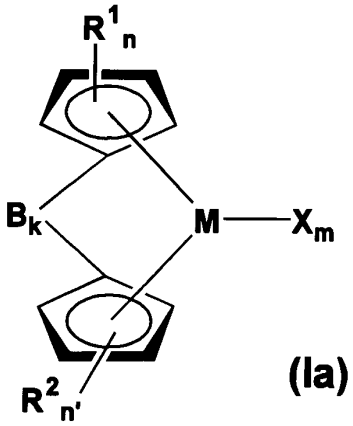
or two or more radicals R^2 may be joined to one another in such a way that the radicals R^2 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24} ring system which may in turn be substituted,

R^3 is hydrogen or C_1-C_{25}-alkyl, C_2-C_{25}-alkenyl, C_3-C_{15}-alkylalkenyl, C_6-C_{24}-aryl, C_5-C_{24}-heteroaryl, C_7-C_{30}-arylalkyl, C_7-C_{30}-alkylaryl, fluorinated C_1-C_{25}-alkyl, fluorinated C_6-C_{24}-aryl, fluorinated C_7-C_{30}-arylalkyl or fluorinated C_7-C_{30}-alkylaryl,

Y is an element of main group 6 of the Periodic Table of Elements.

17. (canceled)

18. (new) A process for converting a bridged metallocene of the formula (Ia)



(Ia)

where

M is a metal of transition group III, IV, V or VI of the Periodic Table of the Elements,

R^1 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or different and are each a hydrogen atom or a C_1-C_{40} group, or R^1 is a C_1-C_{30} group, or two or more radicals R^1 may be joined to one another in such a way that the radicals R^1 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24}-ring system which may in turn be substituted,

R^2 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or

different and are each a hydrogen atom or a C_1-C_{40} group, or R^2 is a C_1-C_{30} group, or two or more radicals R^2 may be joined to one another in such a way that the radicals R^2 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24} ring system which may in turn be substituted,

X is a halogen atom,

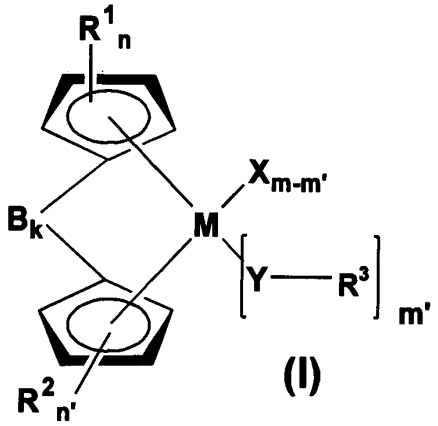
n is from 0 to 4,

n' is from 0 to 4,

m is from 1 to 4,

k is 1, and

B is a bridging structural element between the two cyclopentadienyl rings,



(I)

to a bridged metallocene of the formula (I)where

M, R^1, R^2, X, n, n', m, k, B and R^{12} are as defined above and

m' is from 1 to 4,

R^3 is hydrogen or a C_1-C_{40} group,

Y is an element of the main group 6 of the Periodic Table of the Elements, or a fragment CR^3_2, NR^3, $NR^3(CO)$-, $NR^3(SO_2)$-, PR^3 or $P(=O)R^3$, O(CO)-, $O(SO_2)$-, and in which one or both cyclopentadienyl rings of the bridged metallocene of formula (I) and (Ia) are substituted in such a way that they form an indenyl ring,

comprising the steps:

a) reacting the compound of the formula (Ia) with a ligand exchange component

$$M^1YR^3$$

where

Y and R^3 are as defined above,

M^1 is a cation or a cationic fragment, in particular Li, Na, K, MgCl, MgBr, MgI, or is an ammonium cation corresponding to an amine,

with the compound of the formula M^1X, where M^1 and X are as defined above, being eliminated, in an inert solvent or solvent mixture,

b) optionally, separating off solid residues of the formula M^1X

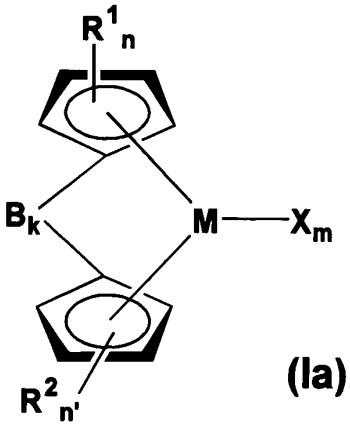
c) optionally, separating off the inert solvent or solvent mixture,

d) recrystallizing the bridged metallocene of the formula (I) from an aprotic hydrocarbon, and

e) separating the compound of the formula (I) from the mother liquor.

19. (new) A process as claimed in claim 18, wherein a polar or nonpolar, aprotic hydrocarbon or hydrocarbon mixture is used in step d).

20. (new) A process for converting a bridged metallocene of the formula (Ia)



(Ia)

where

M is a metal of transition group III, IV, V or VI of the Periodic Table of the Elements,

R^1 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or different and are each a hydrogen atom or a C_1-C_{40} group, or R^1 is a C_1-C_{30} group, or two or more radicals R^1 may be joined to one another in such a way that the radicals R^1 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24}-ring system which may in turn be substituted,

R^2 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or different and are each a hydrogen atom or a C_1-C_{40} group, or R^2 is a C_1-C_{30} group, or two or more radicals R^2 may be joined to one another in such a way that the

radicals R^2 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24} ring system which may in turn be substituted,

X is a halogen atom,

n is from 0 to 4,

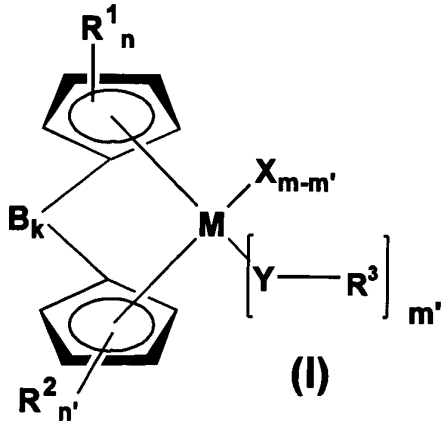
n' is from 0 to 4,

m is from 1 to 4,

k is 1, and

B is a bridging structural element between the two cyclopentadienyl rings,

to a bridged metallocene of the formula (I)



(I)

where

M, R^1, R^2, X, n, n', m, k, B and R^{12} are as defined above and

m' is from 1 to 4,

R^3 is hydrogen or a C_1-C_{40} group,

Y is an element of the main group 6 of the Periodic Table of the Elements, or a fragment CR^3_2, NR^3, $NR^3(CO)$-, $NR^3(SO_2)$-, PR^3 or $P(=O)R^3$, $O(CO)$-, $O(SO_2)$-, and in which one or both cyclopentadienyl rings of the bridged metallocene of formula (I) and (Ia) are substituted in such a way that they form an indenyl ring,

comprising the steps:

a) reacting the compound of the formula (Ia) with a ligand exchange component

$$M^1YR^3$$

where

Y and R^3 are as defined above,

M^1 is a cation or a cationic fragment, or is an ammonium cation corresponding to an amine,

with the compound of the formula M^1X, where M^1 and X are as defined above, being eliminated, in an inert solvent or solvent mixture,

b) optionally, separating off solid residues of the formula M^1X

c) optionally, separating off the inert solvent or solvent mixture,

d) recrystallizing the bridged metallocene of the formula (I) from a solvent selected from toluene, hexane, heptane, xylene, tetrahydrofuran (THF), dimethoxyethane (DME), toluene/THF, heptane/DME or toluene/DME, and

e) separating the compound of the formula (I) from the mother liquor.

21. (new) The process according to claim 18, where in the bridged metallocenes of

formula (I) and (Ia):

M is Ti, Zr or Hf,

R^1 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or different and are each a hydrogen atom or C_1-C_{20}-alkyl, C_1-C_{10}-fluoroalkyl, C_1-C_{10}-alkoxy, C_6-C_{20}-aryl, C_6-C_{10}-fluoroaryl, C_6-C_{10}-aryloxy, C_2-C_{10}-alkenyl, C_7-C_{40}-arylalkyl, C_7-C_{40}-alkylaryl or C_8-C_{40}-arylalkenyl,

or R^1 is C_1-C_{25}-alkyl such as methyl, ethyl, tert-butyl, cyclohexyl or octyl, C_2-C_{25}-alkenyl, C_3-C_{15}-alkylalkenyl, C_6-C_{24}-aryl, C_5-C_{24}-heteroaryl, C_7-C_{30}-arylalkyl, C_7-C_{30}-alkylaryl, fluorinated C_1-C_{25}-alkyl, fluorinated C_6-C_{24}-aryl, fluorinated C_7-C_{30}-arylalkyl, fluorinated C_7-C_{30}-alkylaryl or C_1-C_{12}-alkoxy,

or two or more radicals R^1 may be joined to one another in such a way that the radicals R^1 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24}-ring system which may in turn be substituted,

R^2 are identical or different and are each a radical SiR^{12}_3, where R^{12} are identical or different and are each a hydrogen atom or C_1-C_{20}-alkyl, C_1-C_{10}-fluoroalkyl, C_1-C_{10}-alkoxy, C_6-C_{14}-aryl, C_6-C_{10}-fluoroaryl, C_6-C_{10}-aryloxy, C_2-C_{10}-alkenyl, C_7-C_{40}-arylalkyl, C_7-C_{40}-alkylaryl or C_8-C_{40}-arylalkenyl,

or R^2 is C_1-C_{25}-alkyl such as methyl, ethyl, tert-butyl, cyclohexyl or octyl, C_2-C_{25}-alkenyl, C_3-C_{15}-alkylalkenyl, C_6-C_{24}-aryl, C_5-C_{24}-heteroaryl, C_7-C_{30}-arylalkyl, C_7-C_{30}-alkylaryl, fluorinated C_1-C_{25}-alkyl, fluorinated C_6-C_{24}-aryl, fluorinated C_7-C_{30}-arylalkyl, fluorinated C_7-C_{30}-alkylaryl or C_1-C_{12}-alkoxy,

or two or more radicals R^2 may be joined to one another in such a way that the

radicals R^2 and the atoms of the cyclopentadienyl ring which connect them form a C_4-C_{24} ring system which may in turn be substituted,

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R^3 is hydrogen or C_1-C_{25}-alkyl, C_2-C_{25}-alkenyl, C_3-C_{15}-alkylalkenyl, C_6-C_{24}-aryl, C_5-C_{24}-heteroaryl, C_7-C_{30}-arylalkyl, C_7-C_{30}-alkylaryl, fluorinated C_1-C_{25}-alkyl, fluorinated C_6-C_{24}-aryl, fluorinated C_7-C_{30}-arylalkyl or fluorinated C_7-C_{30}-alkylaryl,

Y is an element of main group 6 of the Periodic Table of Elements.

22. (new) A process as claimed in claim 13, wherein M^1 is Li, Na, K, MgCl, MgBr, MgI, or is an ammonium cation corresponding to an amine.